UNCLE SAM AS A FISHERMAN.

STRANGE CATCHES IN THE WORLD UNDER THE OCEAN.

Stories of Deep Sea Explorations That Will Interest Boys-How Uncle Sam Gropes With Wires Miles Long in the Ocean-Fish That Carry Lights -Tiny Sharks and Sea Serpents.

7 The imagination of no story-teller ever created stranger beings than the real ones that Uncle Sam has been finding in the past years in his trips to the under-world.

This under-world is not far away from us. Its thousands of inhabitants dwell within a few miles of our own coasts. Travellers on steamships are only a mile or so from things that would terrify them unspeakably if they could see them.

But that mile is straight downward; and no one being formed like one of us could exist there for an instant. The weight of that mile of water would crush a man into nothingness. It crushes great iron spheres that are let down into it now and then by Uncle Sam.

Yet there is busy life there, in the black ness of everlasting night. Weird forms crawl and glide and swim everywhere. They are built so that they can withstand the pressure

Indeed, they need it to live, for whenever a few of them are dragged unward by Uncle Sam's deep-sea net they die long before they reach the surface. Some of the more delicate ones actually explode like toy balloons when they are pulled into the upper waters where the pressure is not

Uncle Sam's long sounding wires and trawls have brought up big and little creatures from many thousands of fathoms deep, but he knows that, although he may fish in that way for many years to come, he need not hope to catch any of the swift and huge beasts that may dwell down there, or, indeed, to capture even a fair proportion of the smaller ones.

Uncle Sam has learned enough of the world under the seas, however, to know that if a human being could get into it all the wonder stories ever told by man would seem like dull, matter-of-fact nar-

It is a world without a sun. Nothing that lives there has ever seen that planet rise or set.

Yet in that black abyss there is light -strange, frightening light of many tints that flits and flimmers and throbs through the dark, icy waters. It is made by the inhabitants of the ocean floor themselves.

Some of them have eyes that shine like lanterns. Some have spots along their sides that glimmer as they dart by, as the lighted windows in an express train gleam for a moment through the night on earth as the cars rush past.

There are sextopods and septopods and octopods, cuttlefish with six and seven and eight arms, that are white and filmy as clouds as they float along, surrounded by a blur of light like an electric lamp seen through a dense fog. There are coalblack things that are all mouth, set with fringes of teeth like bent needles, bristling from end to end of their gape.

There are fish with staring eyes, larger than the eyes of any animal of the land. There are other fish with eyes so small that it is only after long examination that one finds two tiny specks, no bigger than the holes that might be made by the thrust of a very small pin.

There are sharks no longer than a lead pencil and others many feet long that are shaped like serpents.

Of the devil fishes and squids alone, there are many hundreds of different kinds. Some of them are tiny, others are immense. They are white and red and black and yellow.

Some of them have their eyes set on peering at the world around them through beautiful little opera glasses. Many of the deep-sea fishes have such telescope

Some of them have the telescopes projecting forward. Others have them looking straight upward.

ing straight upward.

Nature has played wondrous pranks with eyes in her under world. A fish has been caught a mile deep in the south Atlantic Ocean that had no eyes at all, as we are accustomed to think of them.

Instead, it had two burnished convex mirror-like lenses sunken deep in its head. They were golden in color and reflected the declight with wonderful brilliance.

the daylight with wonderful brilliance. In the Antarctic Ocean fish have In the Antarctic Ocean fish have been dredged up from even greater depths with their eyes carried far away from their heads on long stems. They are true flower eyes growing on stalks, as do the biossoms on The first key of the many that finally

were formed by ingenious man to unlock this unknown world was fashioned by one of Uncle Sam's boys. He was a midship-man in the United States Navy, a Virginian, and his name was J. M. Brooke. He in-vented a deep-sea sounding rod that at once made it possible to measure depths never dreamed of before. Although he invented it in 1854, it was

so ingenious and served the purpose so well that even now, after almost half a century, all sounding apparatus is based on it. Capt. Sigsbee, who was commander of the Maine when she was blown up, and is one of the world's greatest authori-ties on measuring the deep sea, says that there is no sounding rod that is not in some way a modification of that young midship

There had been some measuring of the deep sea before that invention, but it was slow and crude work, for it was no light task to haul up the heavy rope that had to be used in order to bear the strain of lifting a 50 or 100-pound weight out of many hundreds of feet of ocean. Too often the weight would tear the rope long before it was brought to the surface.

Young Brooke's invention made it possible to let go of the weight when it touched bottom, so that all that needed to be hauled up was the very light tube hauled with samples of the bottom and other instru-ments that were attached to the line.

In 1880 Uncle Sam built his steamship Fish Hawk, the first large vessel constructed by any nation to study fish. The beautiful Albatress followed. Since she was launched she has made

more than 6,000 deep sea soundings and has hauled nets and dredges in water from 1,000 feet to 20,000 feet deep more than 2,000 times. Nearly 300 books and pam-phlets have been written as the result of

She has made the deepest haul of a net ever made in the world. It was off the Tonga Islands in the South Pacific and her trawl was sunk to the bottom, 23,000 feet below her keel. Animals were found down there, living

where the water constantis is only just above the freezing point and where there is a pressure of 9,000 pounds to the square inch. Human beings on the land live under a pressure of only fifteen pounds

Uncle Sam has made not only the deepest Uncle Sam has made not only the deepest net haulever made, but he has also touched the deepest spot ever found in the ocean. It was with his ship Nero when she was surveying the Pacific Ocean for the new cable. In the western Pacific Ocean she dropped her sounding rod and the wire ran out until it registered a depth of 31,614 feet. To get the wire down into such a depth

To get the wire down into such a depth as that and then haul it in again, is a work requiring more than three hours. To sink a deep sea net and bring it back on board requires all day if it is sent down as far as three or four miles.

The wire that is used for sounding is wound carefully on a reel that is so full of blocks and balance wheels and levers that it looks like an engine. The great that it looks like an engine. that it looks like an engine. The great

kinks. A kink is practically the only way

in which it can be broken, for it is tempered The reel is built firmly on a little platform The reel is built firmly on a little platform overhanging the side of the ship. When a sounding is to be made the weight to take it down is attached, and then sometimes a dozen appliances are hung to it here and

One thing is a thermometer to register the temperature on the bottom. It is so made that it does not begin to work until strikes the bottom, and after it makes s record it stops.

Another appliance opens when it reaches

the bottom, fills itself with a sample of sea water and shuts again. Another tube, with valves, collects mud or sand. A cylinder may be sent down to register the pressure f the water. Everything that is attached to the wire

epresents much labor and thought to make it perfect. It must work just right, for no human hand can reach it after it begins its voyage into the under world.

When the word is given the wire is re-leased and down it goes, slowly and stead-

ily. Men watch it constantly that it shall not go too fast.
Whenever a certain number of feet ha run out a little more pressure is applied to the brake on the reel to counteract the weight of the wire. So finely has this been figured out by Uncle Sam that the reel usually stops revolving the very moment the wire touches bottom, even though that

oottom be four or five miles below The great deep sea nets are attached slender wire cables which are wound on drums also provided with ingenious brakes to take up any sudden strain. After the net is down the ship either steams ahead or drifts with wind and current

according to circumstances. according to circumstances.

When the word is given to reel in the engines complain and groan at first, for generally the net sinks deep into the ooze and it is hard work to break it from the bottom. But as it ascends the sea washes the mud out of it and finally it begins to

come up steadily.

Then you may be sure everybody on board climbs up on deck to see what will arrive at the surface. Even in a ship like the Albatross, that makes so many soundings every year, the interest never flags. every dredging is in a new spot in that unknown world of the ocean. No man can tell what terrible or wonderful thing will appear.

CROPS FOR OUR ISLANDS. Some of the Industries Recommended for Our Tropical Possessions.

It is not intended here to speak at length of the larger crops adapted for our tropical possessions such as sugar, tobacco, coffee and rice, but of some other forms of agriculture which, there is every reason to believe, will develop into important industries. As is well known our Government is now engaged in systematic and extensive investigations in tropical agriculture with a view to the intelligent promotion of the farming interests of our new possessions. A part of the facts given here are taken from the reports thus far printed by our Department of Agriculture but many of them are derived from the growing literature appearing in Europe on this now absorbing topic-the development of tropical countries. Of course every effort will be made

develop and perfect the larger crops above mentioned and there is room for great improvement. The Philippines, with enormous capacity for rice production, do not always grow enough for the home need and large quantities are imported from Cochin China. The islands, in fact, are a rice-importing instead of an exporting region. This condition will be changed under more intelligent management. The tobacco of Porto Rico is highly esteemed but the quality may be much improved by better methods of cultivation and especially by better curing, fermentation and sorting of the leaf. The raw cane sugar of the Philippines is an important article of export but the primitive methods employed result in an inferior product that brings a low price, while the Philippines may be made to compete with Java in the production of cane sugar. Coffee is the largest export of Porto Rico but modern methods of cultivation are not employed and our experts say that the product per acre may be more than doubled. The gradual improvement of agricultural methods in our new possessions is coming. and it will show marked results in the larger quantity and better quality of the more important crops.

There are many products which may or may not be profitable to raise for export. and their commercial value can be ascertained only by thorough and scientific investigation. The fact that our experiment station in Porto Rico has begun, first of all, to inquire into the practicability of raising some of the Northern vegetables has led to speculation as to the possibility that we may yet buy early vegetables from that island as we are now doing from Bermuda and as France is doing from Algeria and England from southern Spain and the Canary Islands.

At first view there seem to be some difficulties in the way. A few Americans have been able to raise superior vegetables on the island and sell them in the towns not board vessels are simply pets. They have many miles from their gardens, at much higher prices than vegetables command in our markets. The Northern vegetables now raised there are usually inferior to ours and sell in Porto Rico at a higher price than we are willing to pay, so that there is no possibility of export. The question to be determined is whether Northern vegetables of fine quality can be raised in export quantities so that the abundance at home will reduce prices and make it possible to export; as a rule, we must look to our colonies not for things that we grow in our own gardens and fields, but for commodities that are distinctively tropical.

The great question is how our colonies shall be fitted to provide us with a large number of tropical products which we now buy in enormous quantities from foreign countries. Why should not Porto Rico supply us with the bananas for which we pay \$5,000,000 a year to Jamaica and Central America? The Porto Ricans raise and eat millions of bananas, but do not export them. In times past some of the varieties they have grown have been noted for their excellence, but for many years bananas have grown just as they happened to grow; the quality is inferior and they are worthless for export; and yet the soil and climate are admirably suited for the banana. This question is to be worked out and the probability is that some day we shall know

Porto Rico as a large exporter of bananas. There is no reason why Porto Rico should not send us cocoanuts by the shipload. Foreign islands in the Pacific send us millions of this nut through San Francisco. We like the meat of the raw nut and our bakers and confectioners use large quantities of it. Copra, the sun-dried meat, is sent in enormous quantities to Europe where the oil is expressed and used to make soap. Coir, the fibres of the husk, is used to make brushes and coarse fabrics. Porto Rico grows large supplies of cocoanuts, but exports very few and prepares no copra or coir. Most of the nuts are picked while still green and are sold in the towns merely for the milk they contain, which is the most popular beverage in the island. Here is a source of wealth that will not be neglected when the island enjoys the prosperity to which its resources

entitle it. For three centuries Porto Rico has been noted for the size and quality of its pineapples. Under the new political conditions,

however, the island is, for the first time, beginning to give serious attention to the cultivation of this fruit, which thus far has grown wild or nearly so. Under the Spanish rule it was practically impossible to ship the fruit profitably to the United States. Between the island and Florida we should be able to procure all the pineapples we want in our own terri-

There is a growing demand for a tropical fruit, now very little known, the alligator pear. It is a pear only in shape and is served as a salad or relish rather than as a fruit. The pears now bring from 30 to 60 cents apiece in the markets of New York. London and Paris, a ridiculous price due to the fact that, being in small demand the supply is very small, but they are steadily growing in favor and Porto Rico is able today to send them to market in large quantities and of the very best quality.

Our experts say that the south side of Porto Rico is admirably adapted to grow the best qualities of the mango to perfection-not the mango that we buy from Jamaica, which has been described as a mixture of tow and turpentine owing to its fibrous flesh and resinous taste. The best varieties of the mango stand in the highest rank of tropical fruits, and excellent conditions for raising them are said to exist in Porto Rico.

We are now dependent entirely upor foreign countries for the cacao from which we make thousands of tons of chocolate. It is still high in price, and is one of the most promising branches of tropical agriculture. The fact that the large fruit is borne on a slender stem which is easily broken off may militate against cacao culture in Porto Rico, a region of high winds and occasiona hurricanes; but cacao has long been cultivated in the Philippines, and ncb dy knows any reason why it should not be able to compete successfully with the product of Latin America. There is a large extent of territory in the archipelago that is said to be well adapted for cacao culture. The tree has not yet been grown there in im-

portant quantities. The camphor forests of Formosa vield 8.000.000 pounds of camphor a year, that island controlling the world's trade in the commodity. As Formosa is the geographical neighbor of northern Luzon, why may not camphor be produced in our own territory? The tree is hardy, easy to cultivate, and is grown in China and Japan, and even in our Gulf States and Algeria, but it requires tropical conditions to produce gum in commercial quantities. The prospects that Luzon may profitably raise the camphor tree are so encouraging that the experiment will certainly be tried.

None of our colonies raises cassava or manioc, the most imporant of the tropical root crops, the food of many millions of people in Africa and tropical America. Tapioca is obtained from this root. Few more profitable crops can be raised by any tropical farmer who has laborers to feed.

The crops considered above, with the possible exception of cassava, are only examples of many agricultural industries which, it is believed, may be developed in our island possessions with a view to a large export trade. There are many other industries that promise finely if they can be made to succeed in the colonies. What, for example, are the prospects of tea raising, of vanilla culture, of jeniquen, in the drier southern parts of Porto Rico, of oranges, rubber and many other commodities? These are questions that in the course of a few years will be carefully

considered Enough has been said here to show the great importance of the investigations now in progress to determine the exact nature of the agricultural conditions in our tropical lands and how best to utilize their resources. It is a work of enormous labor, but the results will undoubtedly start the colonies in the right direction and enable them to utilize their great natural wealth to the best advantage for themselves, the mother

country and the world.

PIGEONS AT SEA. Carried in Deep-Water Ships. Sometimes for I se, but Mostly as Pets.

Stepping about on the deck of a German ship lying at a South street wharf in the mildly grave, gentle manner of their kind were three pigeons. There were two parent birds, and one of their young, all clearly quite at home amid their strange surroundings.

These birds were taken aboard the ship at a port on the west coast of South Amer-Here the vessel is loading for Sydney. Australia, and thither the pigeons will go in her unless some accident befalls them. Homing pigeons carried on deep-water ships are sometimes made to serve purposes of utility, such as carrying messages; but commonly pigeons found on a house on deck and they come out in fair weather and walk about on deck, everybody's friend, for all hands like them. They become very tame and they may walk into the cabin and hop up onto the table

the mate. Pigeons carried at sea often fly about around the ship, or make long flights from it, but, barring mishap, they always re-turn to it. They may keep on the wing near or for half a day at a time and yet come back.

Pigeons do sometimes fiv away and do no come back, having doubtless become lost. And then semetimes pigeons that seemed to come out of the open sky have alighted on the decks of a ship at sea; they had be-come lost from some other ship and had fortunately discerned this one and so saved themselves If ships were in company or anywhere

near on the sea pigeons that might be aboard either would be likely to visit the other. But they would go back to where they belonged.
They stick to the ship when in port with

curious closeness, not going ashore at all. The vessel may be tied to a wharf for days or weeks at a time in unloading and loading, but the pigeons stay right Not so, for instance, the dog often to a found carried on a ship. The dog is

be found carried on a ship. The dog is a roumer and a prowier, and he likes to go ashore and look around and see the place and the people and see what's doing, and he goes ashore wheresoever the ship ties

The day the three pigeons here referred to were seen aboard the German ship in South street there was seen, going aboard the same vessel, the ship's dog. The dog had been ashore, looking the town over, and see now going back.

had been ashere, looking the town over, and was now going back.

The vessel was nearly loaded and, as it happened, the tide was low, so that the ship, at the moment, was low in the water, her rail being about on a level with the string piece of the wharf. Thus the ladder reaching from the wharf to the vessel was in a plantage to receive a second of the string piece. was in an almost horizontal position and the dog had to pick his way along on the edge of the steps. This he did without difficulty, as doubtless he had often done hefore.

The pigeons carried thus at sea on deep-The pigeons carried thus at sea on deepwater ships are likely to stay by the vessels until they lose their lives by accident. Sometimes, coming back from a flight, a pigeon will be caught in the down draught of wind in a sail and dashed into the sea. But they may survive for a long time. The mate of a ship lying in South street said he had known a pigeon to stay on a vessel for five years, sailing in her round and round the world.

VANDALS IN THE SOUTHWEST.

AMERICAN ANTIQUITIES INJURED BY CURIO DEALERS.

Ravages in the Homes of the Cliff Dwellers Ruin in Montezuma's Castle Destruction of the Petrified Forest

Relies Carrie | Off by the Carload. POMONA, Cal., Sept. 26. Serious damage has been done in the past year to the prehistoric remains of the Southwest by the searches for relies carried on by dealers in curios. Several large collections of these relies have sold for tancy sums and with the discovery of the commercial value of such things reckless depredations have been committed in the homes of the ancient cliff dwellers and in the great and mysterious buildings of the plains. Every year vandalism makes more difficult the scientific investigation of the prehistoric civilization represented by these remains.

What is perhaps the finest and oldest of all ruins in the Union, if not in all the world, has been shamefully mutilated during the past year. This is Montezuma's Castle, a majestic communal habitation that stands upon the precipitous eliff on Beaver Creek, a branch of the Verde River in Yavapai county, northern Arizona. Prof. Samuel Wren of Cambridge University, England, pronounced it twenty years ago the most marvellous prehistoric dwelling in the civilized world.

Montezuma's Castle-it never had any thing to do with the Aztec Montezuma-has, it is believed, stood, perched upon its limestone cliff, three or four thousand years. Its construction shows remarkable engineerng and architectural skill considering the limited resources of its builders.

It is built of hewn stone cemented to gether in walls four feet thick. In height the castle is fifty-two feet. It is of crescent shape and is seventy-five feet long. contains thirty-one rooms. Such a ruin would be guarded with jealous care were it in a European country, but it has received no protection.

Every year sees the overthrow of some of its walls in the efforts of relic-dealing explorers to exhume mummies and to get articles of dress, jewelry and buried vases of prehistoric days. One of the principal rooms in the great pile was completely ruined last year by blasting open the supposed vaults there in the hope of getting relies for exhibition at the Pan-American Exposition, and in the past four months a great wall, which undisturbed might have endured a thousand years longer, fell with a crash in the canon below because of undermining by reckless curio seekers.

The work of destroying the cliff dwellings in southern Utah is now well nigh complete. Dr. James B. Weller of Chicago University was shocked upon recently visiting the Utah cliff dwellings to observe the wholesale havoc that has been wrought there since he explored that region eleven

years ago.
What used to be superb remains for What used to be superb remains for scientific study are now irreparably destroyed for satisfactory investigation. From the Utah cliff dwellings seven tons stroved of relies were taken for exhibition pur-poses at the World's Fair and were after-ward auctioned off as curios in a Chicago

shop.

Tombs of ancient Kings and Queens were blown open, and dynamite rent asun-der council chambers and tribal castles that had been built with infinite patience and remarkable skill on the ledges of cower-

and remaining of the same spirit concerns the petrified forest, the largest and most marvellous of its kind all the same spirit concerns the petrified forest, the largest and most marvellous of its kind all the same spirit spirits and the same are spirits and the same spirits are spirits are spirits and the same spirits are spirits are spirits and the same spirits are spirits and the same spirits are spirits and the same spirits are spirits are spirits and the same spirits are spirits are spirits are spirits are spirits are spirits and the same spirits are s world, in northeastern Arizona. It has been hacked to pieces and carted away wholesale by vandal hands.

In the fall of 1899 this wonderland was put under the protection of the Land Office of the Interior Department, but it has not availed much and it was far too late to save trees. Tops of petrified wood are still carted away from the Government lands every month and during the past summer five of the finest specimens of standing trees have disappeared piecemeal in one and two-foot sections.

two-foot sections. two-foot sections.

But this is nothing to the destruction that went on from the time the Santa Fé Railroad was built through the region of the petrified forest in 1885 until two years age. A company of Colorado men engaged in the work of gathering carload lots of sections of the fossil trees and in polishing slabs saved from them. The petrifications are as hard as flint

and as beautifully colored as agate or onyx, and there are mantels, hotel bars. parlor tables and even wainscoting in the Middle West made from the petrified forest. Wanton destruction of the remains of the unknown races that occupied the sandy plains of southern and central Arizona long before the birth of Christ still goes on in Salt River Valley, in the neighbor-hood of Phenix and Mesa City. Tens of thousands of people dwelt in cities where there are now lonely wastes and cattle

No one knows how long ago they built the ruined temples of adobe, the enormous city walls and the strangely constructed rrigation canals which run among the foot-nills and across the plains. There is scarcely hills and across the plains. There is scarcely a bit of evidence as to who these industrious. provident and skilful people were, where they came from and how or when they dis-appeared. There are few more baffling problems in archæology and ethnology han those concerning the wonderful race that dwelt in southern and central Arizona. These people left implements of stone and bone, jewelry of shells, cooking utensils of stone and remains everywhere of habitations. The nation has absolutely nothing

to protect these relies.

Hundreds of men and boys dig and plough at will among the pre-Columbian cities, pull down walls, exhume implements, open graves and carry, away wagonloads of relies to sell to dealers. The curio stores of California and the Southwestern towns visited by tourists contain quantities of relies of the unknown people.

These relies left undisturbed and together to be studied by scientists would throw

to be studied by scientists would throw light on one of the most puzzling and interesting problems American archæologists and ethnologists may have to grapple. During the past year a company of seven men have been at work digging a carload of these relics at Los Muertes, in Maricona county. Dr. Fewkes and Prof. Hodge of the Smithsonian Institution are very much in carnest in the opinion that unless some check is put upon the randalism among the prehistoric remains in the Southwest, there will be none worth protecting in a few years more. There is a question as to what is the most expedient method of bringing about a cessation of the rapid destruction of these memorials.

rapid destruction of these memorials.

Two suggestions are offered on the subject. One is that scientific societies take the matter in hand; the other is that the proper course should be to protect by mational legislation a few well-chosen types of prehistoric dwellings.

The United States is about the only civilized country in the world that has not stringent laws in regard to the exportation of antiquities. One or two of the best collections from the ruins of ancient mound builders have been sold to foreign museums, so that it is now necessary for a student who wishes to examine certain antiquities of his own country to go to Europe. Mexico has own country to go to Europe. Mexico has for years regulated the exportation of archæological material, and prevented the wholesale destruction of antiquities by dealers in curios

dealers in curios.

To-day there is nothing to prevent any one in this country from tearing down a ruin, gathering together the objects found therein, and selling them to the highest bidder.

Folks Who Get That Tired Feeling find that melancholia is driven away by reading the human interest stories which appear only in The Sun and The Evening Sun.—Adv.

SWITZERIAND IN WAR TIME. Fortresses by Which She Will Defend Her

Neutrality. We are in the habit of looking upon

Switzerland as a quiet, peaceful country. lying in the midst of the four great European Powers with their armed hosts, its own army but a handful of herdy mountaineers, with little interest in military matters. But this is far from being the case, for Switzerland is perfectly aware of the strategic importance of her situation, and knows that if she cannot defend her neutrality by force of arms her territory may soon become the theatre of operations of the great armies about her. Consequently, she is improving her army as much as possible, and is fortifying all important points as effectively as her finances warrant

In all times the inviolability of neutral territory has been merely a question of the strength of the forces available to defends its inviolability. Switzerland cannot hope to preserve her neutrality by the means employed in 1870; she must be ready to defend herself against invasion. After the war of 1870 it was believed that

the field army would alone suffice to p oteet the country, but in 1878 the idea took root that this militia army, perhaps more than any other national army, required that its theatre of operations be strengthened by fortifications and in 1879 the Federal Council took up the question and attempted to obtain an annual credit for the deferers of the land. There was too much opposition, however, at that time, and even as late as 1886 only 500,000 francs were voted for this purpose, and these were to be devoted to the improvement of works at St. Maurice, Bellinzona, Aarau and Luziensieg, some of which date from 1832. Before this sum was expended however in this way it was found that these points, even if furnished with modern fortifications, would constitute but an imperfect system; consequently, other points were selected and the new system has since been gradually developed and perfected.

This system comprises a series of fortifled points on the ridge of the St. Gothard, with auxiliary works near St. Maurice.

The works on the St. Gothard comprise fiv · separate positions; at the Furka Pass. on the Oberalp, at Airolo, at St. Gothard, and at Andermati. The works at the Furka Pass at an altitude of 8,000 feet were begun in 1890, and include the battery Galenhütten, northwest of the pass, an armored and casemated work and as auxiliary, the fort of the Rhone Glacier, on a plateau northeast of the pass, with a 4.72-inch picc in an armored turret, designed to close the pass and pre-vent the principal work from being turned. Behind the fort are buildings for the men and arms destined to carry on the mobile deferce of this sector, as well as storehouses for ammunition, supplies and con truction material.

These works are primarily designed to

command the pass, through which passes the carriage road from Andermatt to Oberwald, in the Valley of the Rhone, and the road for pedestrians leading from Ober-gestelen to the Valley of the Aar. Incidentally they also cover the Grimsel Pass, over which the works of the St. Gothard might be turned. The better to effect this, the field of fire of the Galenhütten battery was enlarged, carriage roads were constructed to various points where good artillery posi tions could be obtained, and telegraph lines were put up to the front of the Furka Pass

The fortifications at Oberalp Pass, which leads into the Valley of the Rhine, were begun in the same year, and comprise the redoubt of Calmot, to the east of Oberalp Lake, and the battery of Grossboden, about three miles west of the redoubt. North the redoubt is an infantry position, strengthened with a 4.72-inch rapid-fire howitze The redoubt itself is designed to form the centre for temporary fortifications to be constructed in case of mobilization, the necessary guns and carriages being stored in magazines west of Oberalp Lake east of the Grossboden battery is the camp of Loch, where the mobile deferes are to be concentrated. These works are designed to guard the pass and the road from Anderentia and to flank an

The works constructed near Andermatt face to the north, and are more substantially built than any of the others. They are the key to the entire position. Their purpose is to close the road from Lucerne and Göschenen, up the Reuss valley, to the St. Gothard Pass. They comprise six principal works. Fort Brüh, northwest of Andermatt, is built partly in the rock and partly of concrete, all its artillery two 4.7-inch guns, two 4.7-inch mortars and three 2-inch piecess being protected by armor, and the tunnel and the Pont du and three, 2-inch pieces) being protected by armor, and the tunnel and the Pont du Diable are mined so as to be inumediately blown up when necessary; Battery Altkirch is cut in the rock, south of the right bank of the Reuss, and flanks the road and Fort Bruhl. Fort EAtzberg, with three 4.7-inch guns in turrets and three rapid-fire 2-inch guns on disappearing mounts, covers the north, the only sector not covered by Fort Bruhl; a masonry block house at Bruckenwaldboden supports Fort Patzberg; an observation station on the Eatzberg, and Battery Rossmetteln, southwest of Fort EAtzberg, covering the road to St. Gothard, the Oberalp Pass, and the Valley of Urseren, are the other works. For the direct protection of the Pont du Diable and the tunnel of the Urner Loch there is a casemate armed with rapid-fire guns and iron gates which can be closed by electricity. The various structures in this region (tunnels, bridges, &c.) are also mined and can be quickly destroyed. There are barracks arranged for defence, and a large number of storehouses for provisions, equipments and artillery materials.

The defences at Airolo face south, and include a fort, a battery and a flanking work. Fort Fondo del Bosco, one mile west of the station of Airolo, is an armored work, trapezcidal in shape, covered with concrete, commanding the St. Gothard road, the southern entrance of the tunnel, the railroad and the valley of the Tessin. Battery Motto Bartolo, further north, is an earthwork for artillery designed to protect the fort against fire from the heights on the right bank of the Tessin. Infantry positions are provided for, but are not to be constructed before mobilization. The Alp Stucci work is cut in the rock just north of Airolo and is armed with rapid-fire pieces.

The fertifications of St. Gothard proper constitutes a second line for the works at Diable are mined so as to be immediately serial process of the protection of the Port of the Control of the Port of the

south to Martigny. Fort Savatan, near the old fort of that name, has a turret for howitzers and rapid-fire guns and ban-quettes for infantry. At the summit of the Aiguilles is a fortified observation station, its view extending to Vevey on Lake Geneva. These works serve to vent an army from advancing from west by the upper Rhone Valley, or from Lake Geneva by the Grand St. Bernard and the Simplon.

These are the principal defences now in existence. Others are under considera-tion, such as the line Luziensteg—Sargens— Ratgaz and the Splingen. The passes of the Jura and the tunnel of the Simplon are mined, so that they can be converted into

obstructions without delay.

It is evident that Switzerland is well prepared defensively to assert her neutrality in case of a general European war, and offensively her 450,000 trained soldiers should enable her to control the situation

THE DOG NOT IN IT. Mishap in a Lecture About Dr. Kane's Arctic Travels.

The return of Dr. Dedrick from the Arctic regions with an Esquimau dog said to have been farther north than any other dog reminded a man who read of it of a story, which he told:

"I am not at all skeptical on the subject," he said. "If Dr. Dedrick says he has such a dog I believe it. But there was a time when I wouldn't have done so.

"Some years ago, after Dr. Kane had returned from his Arctic explorations, a panorama of his expedition was put on the road. The man who lectured played a melodeon between his talks, while one scene was being reeled off to make way for another. He was an old friend of mine and was engaged in the business for the purpose of getting enough money to finish collegiate course.

"The day he got to my town he hunted me up and said he wanted me to help him find a Newfoundland dog. I didn't know as much about Arctic expeditions then as I know now, and I wondered what the onnection was between a panorama and

a Newfoundland dog.

"You know,' said my friend, 'that Dr.
Kane had a dog, and he brought it back
to the United States with him."

"I saw what he was up to and asked him." why he didn't get a dog and keep it. He said that in most of the towns where he showed they charged him for the dog's board and he couldn't stand the expense.

"I told him I would have a dog at the hall that night. He said the dog didn't have to come on until the last scene. I made arrangements and the dog was taken

up through the stage entrance and tied, to wait orders.
"As the last scenes were being unrolled

"As the last scenes were being unrolled my eloquent friend referred to the dog which Dr. Kane had brought back, and said be had him. He got the audience worked up over his description of the fine Newfoundland. And then he went behind the scenes to fetch the dog out.

"I was also there. The young lecturer raved like a pirate when he saw the animal. The man whom I had hired to get a dog said he couldn't find a Newfoundland so he brought the next best he could get. It was one of those lorg, lean, frozen grey-hounds, and the man wanted \$5 for it before he would consent to let it go on.

"My friend said he didn't want the dog at any price. He had promised to show up a Newfoundland and he couldn't offer anything else.

anything else.

"The dog agent said he didn't know anything about that, and he didn't care. He had done the best he could.

"There was a long wait in the audience, pending an arbitration. I paid half the demand and the lecturer paid half. Then the dog agent struck the lecturer for a pass for himself and family for the next night. anything else.

night.
The lecturer returned to the platform and explained that the Newfoundland dog of Dr. Kane had been taken ill suddenly and could not appear, and referred to me to substantiate the statement, which I did. was my first appearance on the platform. From that time as long as my friend ran the

panorama he cut out that part of his lecture which referred to dogs." LAKES OF INK AND GLUE. Some Idea of the Amounts of Stationery

Supplies Used in Washington. From the Weshington Evening Star annually spilled in Washington, to say nothing and graphite used in pencils, and many tons

and graphite used in pencils, and many tons of horses hoofs and of gum arabic in the clarified form of mucilage." remarked inquiringly a gentleman to a friend in an uptown hotel this morning.

The gentleman addressed, who happened to be a contractor for Government supplies, replied. "It would be comparatively easy to answer your question as regards one or two of the different departments, but to furnish a grand aggregate total would stump a statistician or expert mathematician in any

furnish a grand aggregate total would stump a statistician or expert mathematician in any one of the bureau.

"The information your question suggests is of local and general interest, but the information has never been compiled, as the job is incommensurate with the results. However, I happen to have made your query the subject of recent investigation, and I can give you an answer which will be approximately correct. The amount of stationery, &c., used by the different departments is enormous, so much so that if I amount of the subject of t tionery. Ac., used by the different depart-ments is enormous, so much so that if I am a lew hundred gross, more or less, out of the

AT THE STEAMBOAT MORGUE

ONCE FAMOUS CRAFT AWAIT DIS SOLUTION IN JERSEY.

They Make a Last Run for Life When a Galo Gives Them the Chance, So They Are Sunk in the Mud-Some Hoodoos in the Lot, Some Called Palatial in Their Day.

The old Central, the hoodoo of the Jersey 'entral's ferry fleet, a craft built in Brooklyn thirty-nine years ago, has at last found her way to the steamboat morgue down at Perth Amboy, where so many boats well known in their day have given up the ghost. There was never anything essentially wicked about the Central. She never committed any sensational crime, was never concerned in any wholesale lilling as was the Staten Island ferryboat Westfield. The Central's hoodoo hardly went beyond petty messes and minor acddents, with a liberal allowance of suidides. But if there was anything in this line going when the Central was near she could be safely counted on to be in it.

In this respect she was a close to the Chicago of the Pennsylvania's fleet, only the Chicago's career was more depraved and desperate than was the Central's The Chicago had one dynamite explosion and many more troubles. Her favorite trick was lunging into her plet and everything affoat that was within reach. On her last grand spree she sank to the bottom of the North River and

drowned some people. But that tragedy seemed to steady her and to bring home to her the advantage of leading a better life. When she was raised from the mud of the river bottom and rebuilt she was a changed boat. She has swung from Cortlandt street to the Pennsylvania Railroad S ation in Jersey City and back again ever since with the regularity of a clock pendulum. Even those who once most distrusted her are now convinced that her reform is genuine and that hereafter she may be counted upon to lead an exemplary life

But the poor old Central may never have a chance to reform. She is down at Gregory's steamship execution dock awaiting sentence. Really she shows few traces of the reckless, devil-may-care life she has led for nearly forty years. She is just a triffe sway-backed and her guard rails are battered in, looking a little as though she might have been out all night on a fog rampage. But otherwise she is all right. Give her boiler a good head of steam—and it'd stand the steam all right—and put a friendly hand at the tiller, and the Cen-tral would run away from that graveyard with a broad, bright streak of foam in he

wake. She looks very forlorn, though, now, with the decaying old steamboat skeletons all around her. On one side is the old Northfield, sister to the Westfield of tragio Northfield, sister to the Westfield of tragio memory. On the other is the big Chancelor, with her ribs letting the daylight through them. Then there is the sway-backed Colonia, which after years of useful life, carrying tens of thousands safely over the waters of the bay and river, suddenly became depraved in her old age, took to permitting gambling and the illicit sale of intoxicating beverages aboard, had her license taken away and was finally towed around to Gregory's steamboat towed around to Gregory's steamboat slaughter house, where she, too, is now awaiting execution. Nothing can save her-

Her name is junk.

But the Central is merely awaiting sentence. It is not yet determined whether she is to die. That all depends on how she stands the test of future examina-tions. When Mr. Gregory buys in a vessel from the insurance companies or from the insurance companies or from the individual or corporation that owns her and takes her around to his abattoir it does not necessarily mean that she must die. The lives of a great many have been spared at the last moment. It all depends on whether anybody can see enough promise of good in the vessel to warrant paying the price Mr. Gregory fixes as her ransom. Mr. Gregory himself will do nothing to save the life of a vessel that comes into his hands. He does no repairing whatever hands. He does no repairing whatever if a boat is taken from him by paying his price it is taken just as it is. So there is a fighting chance for the Central yet.

As for the Drew—the stately Drew, which

As for the Drew—the stately Drew, which for so many years was one of the night queens of the Hudson River between New York and Albany—for her, too, there is no hope. Her back is broken and she rests in the mud, leaning heavily against Mr. Gregory's dock, but still towering above the heads of the forlorn fleet that crowd close up to her.

close up to her.

She is already in process of dissolution.

Her machinery vitals have been taken out and her smokestack is gone. The process of transforming her into iunk is going steadily on. Soon the palatial craft which in years gone by, all ablaze with light and life, and to the merry tinkling of music. swept by moonlight up the broad Hudson, will be but a memory and a name. Her companion, the Dean Richmond, went the way of all steamboat timber and iron long ago. Both were stately figures in the

ago. Both were stately figures in the travel of a generation or so ago.

As it is in the killing of a steer under modern methods, so it is in the killing of a steamboat. Not a scrap goes to waste. Pilot houses are taken off bodily and sold bodily. Timbers and siding that is sound go into the building of other craft or into the building of houses or sheds. Woodwork that cannot be otherwise used is cult work that cannot be otherwise used is cut up and sold for firewood and kindlings. Every piece of machinery that is beyond use, every bolt and nut that is fit for nothing else, goes to the scrap iron heap and so late finding its way to the furnaces and forges comes out in new forms of ironwork once more. Boats go from New York down to Perth amboy and take on from the steam-boat morgue heavy loads of timber and iron-mongery to be used in city shops and

John H. Gregory, a Sag Harbor man by birth, like his father before him, has been in the steamboat breaking-up industry all his business life. He is now 38 years old, began business when he was 17, has made a fortune and over one of the finest resi-

began business when he was 17 has made a fortune and owns one of the finest residences in Perth Amboy, where there are fine residences, notwithstanding the impression you get of the place as you pass through it on the railroad.

Mr. Gregory's steamboat morgue is in plain sight from the Long Branch and Lakewood trains as they cross the long bridge over Raritan Bay, and the passengers as they are whirled by rarely fail to comment on the appearance there of some old familiar steamboat form and name that shows up in the dismal group of dead craft. In times of storm, when the wind sweeps up the Raritan from the lower bay and down Sandy Hook way, the aged craft tied up for execution have been known to break away and make a run for their lives. They have even crashed up against the railroad. have even crashed up against the railroad bridge before they were caught. So they are usually shackled to the bottom by pull-ing the water plugs cur of them and letting

Mother Goose Fricasseed.

ROCK A BIE Rock a bye pany. On the tree top.
When the wind blows the cradle will rock. When the bough breaks The cradle will fall And somebody will have to pony out just \$2 to have

the aforesaid baby repaired. Little Bo Peep Has lost her sheep And I know where she il find 'em in the butcher shops

them sink in the mud.

LITTLE JACK HORNES. Sat in a corner Eating a Christmas o

As mutton chops

of appendiculs.

From it a plum he did heul. Gulped it down seed and all And now the doctor is bothered with another the